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ABSTRACT

This study explored preschoolers' social cognition about their affect and behavior in difficult peer situations. Children completed the Challenging Situations Task (CST), a pictorial forced-choice measure developed to examine preschoolers' affective and behavioral responses to three problematic peer situations. Children also completed a task designed to assess their understanding of emotional expressions and situations. Children's emotional displays were observed in the preschool; their likability was rated by peers; and their adjustment was rated by teachers by means of the Behar Problem Behavior Questionnaire. Results indicated that children's expressed emotions and understanding of emotions predicted their social cognition about developmentally important situations. Results also indicated that the quality of children's social cognitions about these situations predicted others' evaluations of their social competence in the preschool environment. A list of 34 references is included. An appendix describes the three CST scenarios. (BC)

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Preschoolers' Understanding of Challenging Peer Situations

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Running Head: PRESCHOOLERS' SOCIAL COGNITION OF PEER SITUATIONS

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Abstract

A pictorial forced-choice measure was developed to examine preschoolers' affective and behavioral responses to three problematic peer situations (Challenging Situations Task; CST). Children's choices of affective and behavioral responses were expected to predict evaluations of their social competence. Moreover, it was expected that these choices would be predicted by children's predominant affect in the preschool and their understanding of emotions in general. Twenty-eight preschoolers (mean age = 58 mos) completed the CST and a task designed to assess their understanding of emotional expressions and situations. Their emotional displays were observed in the preschool; teachers completed the Behar Problem Behavior Questionnaire, and peers rated their likability. Results supported a model of social competence: Emotion, through expressed emotions and understanding of emotions, influences social cognition about developmentally important peer situations. Further, the quality of social cognitions about these situations predicted evaluations of social competence made by significant others in the environment.

Preschoolers' Understanding of Challenging Peer Situations

This study explores preschoolers' social cognition about their own affect and behavior in difficult peer situations. Increasingly, it is recognized that social cognitions about peer interaction mediate children's actions in potentially problematic peer situations (Dodge, Pettit, McClaskey, & Brown, 1986), and that this principle holds true even during the early elementary years (Putallaz, 1983). Presumably, hypothetical strategies proposed by children are those to which they most commonly resort during ongoing peer interaction; that is, after encoding and interpreting a peer situation, children reflect on choices of behavioral strategies, and finally enact their choice (see Dodge et al., 1986).

Some investigators (e.g., Spivack & Shure, 1974) have implicitly assumed this mediation in their focus on fluency of solution generation as an index of preschoolers' social adjustment. Others have emphasized that individual differences in the quality of solutions to such problems are more likely to predict success with peers (Rubin & Daniels-Beirness, 1983; Rubin, Daniels-Beirness, & Hayvren, 1982; Sharp, 1981). For example, Rubin, Daniels-Beirness, and Hayvren (1982) reported

that children who more often generated prosocial solutions to property disputes were more well liked than children who generated agonistic solutions.

In this study, we investigated preschoolers' choice of specific behavioral strategies during pictorially depicted peer situations. There also is increasing recognition that social congition cannot be divorced from affect (Hoffman, 1981). Thus, affect occurring during encoding of problematic peer situations can influence social cognition, such as the choice of behavioral strategies which in turn lead to enacted behavior (Hoffman, 1981; Kosslyn & Kagan, 1981). It is often assumed that affect enables or disables the social cognitive processing necessary to choose high quality alternatives for enactment in actual social situations (see Hoffman, 1975). Gottman (1986), among others, has called for the inclusion of children's affect during social cognition as a concomitant mediator of peer behavior. To our knowledge, the challenge to specify this affect-social-cognition-behavior pathway has not been met satisfactorily.

Although there is little empirical data bearing on affect <u>during</u> social cognition, our previous research has shown that children's predominant affect is related to certain social cognitive abilities. For example,

happier children demonstrate greater understanding of emotion, while angrier or sadder children demonstrated relative deficits in this ability (Denham, 1986). There also is evidence that affect can alter the course of social behavior. For example, Barnett, King, and Howard (1979) found that self-focused sadness led to less prosocial behavior, and other-focused sadness to more prosocial behavior. Sroufe, Schork, Motti, Lawroski, and LaFreniere (1984) found positive associations between preschoolers' positive affect and their social competence.

In this study, we will directly address the relations between self-reported affect during potentially problematic interpersonal situations, and the social cognitive strategies chosen to solve them. We expect that children who report anger in these peer situations will also more often choose aggressive behavioral strategies, and less often choose prosocial strategies. Further, children who predict that they would be sad in such situations (i.e., who admit the distress that these situations may cause) may more often choose prosocial strategies, and less often choose aggressive ones. In contrast, we expect that chosen affect and evaluations of actual social

behavior will be related (e.g., angry choices will be related to negative evaluations of social competence).

Moreover, in our model of preschool social competence, children's understanding of behavioral strategies and concomitant affect during challenging peer situations are supported by their own prevalent emotions and their understanding of emotions. Individual differences in enduring emotions and in the social cognition of emotions may be seen as intrapersonal forces which predict both behavioral affect and strategies during peer situations.

Thus, it is expected that emotionally positive children would choose more prosocial, and fewer aggressive, behavioral strategies in the situations depicted for them. They would be less preoccupied with their own needs during peer situations, and more able to mobilized socially competent responses (see also Hoffman, 1975). Moreover, it was expected that children observed to show more positive emotions would report feeling sad, rather than happy or angry, during such peer situations. They would be more able to admit that the situations were potentially conflictual, as indexed by their choice of sadness, than children observed to display more sadness and anger.

Similarly, children who better understood others' emotions would more likely choose prosocial, rather than aggressive, solutions as responses to the challenging peer situations. They would be more able to see both points of view in the situation (see also Denham, 1986; Denham, McKinley, Couchoud, & Holt, 1990, for positive relation between observed prosocial behavior and understanding of emotion).

In this study, we also investigated the relation of these choices to well-validated teacher and sociometric ratings. Children's choice of behavioral strategies also was expected to relate to others' evaluations of their social competence. That is, children's social cognition underlies their actual social behavior, as evaluated by teachers and peers. Specifically, children who choose prosocial alternatives for responding to challenging peer situations may be seen by teachers as more socially adjusted. In contrast, children who choose more aggressive, manipulative, or avoidant alternatives may be seen as less socially adjusted in the classroom. Similarly, peers' evaluations of children's likability are likely to be related to choice of prosocial and aggression alternatives (Rubin et al., 1982).

In summary, our goals in this study were to: (1) describe preschoolers' social cognition about both their affect and their behavior in difficult peer situations; (2) to explore the linkage between children's predicted affect and behavior in such situations; (3) to substantiate that observed affect and knowledge of emotion support this social cognition; and, finally, (4) to demonstrate that this social cognition about affective and behavioral choices in trying peer situations is in fact related to both teacher and peer assessments of social-emotional competence.

Method

Subjects

Subjects were 28 preschool children, with mean age of 58 months (range = 47 to 69 months); they attended two classes of a university laboratory preschool. All but one of the children were Caucasian; almost all were middle- to upper-middle socioeconomic strata. There were 14 males and 14 females.

Measures

Challenging Situations Task (CST). This measure was designed to assess children's affective and behavioral responses to hypothetical peer situations. A challenging situation was defined as one which would elicit affect and test the limits of the child's

behavioral abilities within the crucial peer relationship.

The situations were: (a) a peer knocking down a tower of blocks which the child was building; (b) being hit by a peer on the playground; and (c) entering a group of peers playing a game. These categories of peer provocation and entry into a peer group were previously identified by Dodge, McClaskey, and Feldman (1985), as suitable for differentiating levels of social competence in elementary school-age children. Their suitability for preschoolers was confirmed through structured interviews in which parents, preschool teachers, and clinical and developmental psychologists were asked to generate a list of challenging situations which occur in the daily lives of preschool children. They were also asked to indicate possible adaptive and maladaptive affective and behavioral responses for each situation.

Four categories of affective responses (i.e., happy, sad, angry, and neutral, or "just okay"), and four categories of behavioral responses (i.e., prosocial, aggressive, manipulative, and avoidant) were identified for each situation. Prosocial responses included engaging the other person in constructive play, not becomeing upset, and discussing the problem. Aggressive responses included yelling. hitting the other

person, or destroying the peers' game. Crying and/or pouting were manipulative responses. Avoidant responses were ignoring the other person, withdrawing from the interaction, or waiting on the sidelines (see Appendix).

This instrument was designed in the alternative structure, pictorial format similar to that described by Harter and Pike (1984). It consists of presenting 3x4 inch pictures of the challenging situations, accompanied by verbal descriptions. The child was instructed to pretend that he or she was in that situation and to respond to questions as if it was a real situation for them. Affective and behavioral choices were presented in random order.

Following the presentation of each challenging situation, four pictures of happy, sad, angry, and neutral affect (drawn as on dolls and puppets available from "Feelings Factory") were shown to and labelled for the child. Then the child was asked to point to the picture which best described the answer to "how do you feel when [this situation] happens to you?"

After the child responded either verbally or by pointing, the three unselected affect pictures were removed. The child was then shown a picture of a large circle and a picture of a small circle, and was asked "Do you feel a lot or a little [the selected affect]?"

After the child responded, the unselected intensity circle was removed. Empirically, index of intensity for this sample was negatively skewed, with at least three-fourths of subjects asserting that they would feel strongly in each situation; because it showed so little variation, it was not used in subsequent analyses.

Next, four pictures of behavioral responses (prosocial, aggressive, manipulation of others, feelings, and avoidant) were presented and the child was asked, "what do you do when you feel that way [in this situation]?" Again, after the child responded, the three unselected behavioral choice pictures were removed. Scores for affective and behavioral responses used were number of times each affect and each behavioral response were chosen by each child, across the three situations.

Observed emotions. Subjects' emotions were observed in the classroom by observers blind to results of other measures or the hypotheses of the study. They observed during free play, using focal observational techniques, for a period of eight months. Focal children were observed in random order for periods of five minutes per observation, for an average total of 39.94 minutes (SD = 2.09), over an average of 7.46 days (SD = 0.41). Happy, sad, angry, fearful, and pain, and "other" displays were operationally defined according to

ecologically valid facial, vocal, and motor indices. Indices of fear, pain, and "other" emotional displays are not discussed further because they occurred infrequently.

Of the 692 happy displays coded, 120 were observed for reliability analyses. Percentage agreement equalled 82% across observers; kappa equalled .79. Of the 141 angry displays noted, 31 were observed for reliability analyses. Percentage agreement equalled 81% across observers; kappa equalled .74. Of the 57 sad displays noted, 18 were observed for reliability analyses. Percentage agreement equalled 78% across observers; kappa equalled .61. In this study frequencies for each emotion and for overall emotional expressiveness were converted to the rate per minute of each.

Understanding of emotion expressions and situations. A familiar adult female administered the following in the subjects' preschool: 1. Emotion expression labeling: Children examined four flannel faces, on which the expressions of happy, sad, angry, and afraid were drawn (from Izard, Dougherty, & Hembree, 1980). They were first asked to identify these facial expressions verbally, by naming them, and then non-verbally, by pointing.

2. Emotion situation knowledge was next assessed by:

(a) a task that explored children's knowledge of others' feelings in situations that elicit unequivocal emotional reactions, such as happiness at being given an ice cream cone, or fear at having a nightmare (Borke, 1971; Denham, 1986). Puppets enacted eight vignettes, accompanied by the puppeteer's standardized vocal and visual emotion cues (Izard, Dougherty, & Hembree, 1980); and (b) a task that measured how well children could identify others' feelings in situations where the "other" feels differently. Mothers reported, via a forced-choice questionnaire, the subjects' feelings in 12 common situations which could elicit two basic emotions; for example, mothers were asked whether their child would be happy or sad to come to preschool. Puppets enacted the 12 situations; in each, maternal reports determined its emotions. For example, if the subject's mother had selected happy, the puppet felt sad (for more information on this measure, see Denham, 1986, and Denham & Couchoud, 1990).

To indicate how the puppet felt, subjects affixed to the puppet one of the four flannel faces used in the expression labeling task. The protagonist puppet was the same gender as the subject. For each of the tasks, subjects received 2 points for a correct answer, 1 point for correctly specifying only the emotion's

positive/negative dimension (e.g. choosing the sad instead of the angry face). The emotion knowledge aggregate equalled the sum of standard scores on each of the 20 vignettes and eight expression identification items; Cronbach's alpha equalled .83.

Sociometric rating. We adapted Asher, Singleton, Tinsley, and Hymel's (1979) reliable and valid sociometric rating measure (Hymel, 1983). Children rated peers by inserting photographs of classmates (whom they had already named to ensure recognition) into boxes on which drawings of happy, sad, and neutral faces were affixed. Procedurally, children were taught to insert a photo into the happy face box if they liked the peer "a lot," in the neutral face box if they "kinda liked" the peer, and in the sad face box if they "did not like" the peer.

Asher et al.'s (1979) methodology was modified to include a tutorial session in which the experimenter demonstrated the task before requiring the child to make ratings. Ample facial and vocal cues of emotion were displayed by the tester while she placed Fisher-Price "people" in the boxes.

All scores were converted into proportions before analysis because some children were rated by more peers than others due to peer raters' absences or refusals.

An aggregate rating was then created. It equalled (3 X proportion of one's class putting one in the "like a lot" box) + (2 X proportion of one's class putting one in the "kinda like" box) + (1 X proportion of one's class putting one in the "don't like" box).

Teacher ratings. Teachers were be trained to complete the the Preschool Problem Behavior Questionnaire (PPBQ; Behar & Stringfield, 1974). Well-validated scales for aggression and miserable/fearfulness were used (Hoge, Meginbir, Khan, & Weatherall, 1985; Rubin & Clark, 1983); higher scores denote maladjustment. For the aggression scale, the teacher gives each child a rating from 0 to 2 on seven items: inconsiderate, destroys property, bullies other children, fights, kicks, does not share, and blames others. For the miserable/fearfulness scale, the teacher gives each child a rating from 0 to 2 on five items: fearful, miserable, stares, cries, and gives up.

Results

Goal One: Description of CST Social Cognition and Affect

Descriptive data for all variables are shown in Table 1. Sufficient variation occurred to warrant correlational analyses. However, for CST affective and behavioral choices, there were interesting predominant responses. For the block situation, affective responses

were predominantly sad and behavioral responses were predominantly prosocial [chi-squares (3) = 14.00 and 7.71, ps < .001 and .05, respectively]. For the peer hitting situation, affective responses were predominantly sad and angry, with behavioral responses predominantly prosocial and aggressive [chi-squares (3) = 11.21 and 5.43, ps < .01 and .05, respectively]. For the peer entry situation, the predominant affective response was happy and the predominant behavioral response was prosocial [chi-squares(3) = 12.29 and 19.71, ps < .01 and .001, respectively]. Sad affective and prosocial responses were linked for the whole group only for the block situation [chi-square (6) = 15.54, p < .025].

Goal Two: Relations Among Affective and Behavioral Choices

Intercorrelations among CST variables are shown in Table 2. Children who more often picked sadness as their affective response were more likely to pick prosocial behavioral responses. In contrast, they were less likely to pick angry affective and aggressive behavioral responses. Children who more often picked anger as their affective response were likely to pick aggression, but not prosocial behavior, as their behavioral response. Choice of neutral affective responses was marginally negatively related to choice of

happy affective reponses, but positively associated with choice of manipulative behavioral strategies. Children who more often chose prosocial behavioral responses tended not to choose aggressive or avoidant behavioral responses.

Insert Tables 1 through 3 here

Goal Three: CST's Relations With Predominant Affect and Understanding of Emotion

Intercorrelations of CST variables with observed emotions and emotion labeling and situation knowledge are shown in Table 3. Children who more often chose sad affective responses to the three peer situations were likely to show happiness and to be emotionally expressive in the preschool classroom. Those who more often chose angry responses were less likely to be expressive in the preschool classroom. Moreover, children who more often chose happy affective responses were less able to label emotional expressions ($r = -.51$, $p < .025$).

Children who more often chose prosocial behavioral responses were likely show happiness and be emotionally expressive in the preschool classroom. They also scored higher on emotion knowledge. In contrast, children who more often picked aggressive behavioral

responses were less likely to show happiness in the preschool classroom.

Goal Four: CST's Relations With Teachers' and Peers' Evaluations of Social Competence

Intercorrelations of CST variables with teacher and peer evaluations of social competence are shown in Table 3. Children who more often chose sad affective responses were less likely to be rated as Miserable/Fearful by their teacher, whereas those who more often picked angry responses were more likely to be rated as Miserable/Fearful. Children who more often chose prosocial behavioral responses were rated as more likable by peers, and as less Miserable/Fearful by teachers. In contrast, children who more often picked aggressive behavioral responses were rated as less likable by peers. Children who more often said they would cry or pout (i.e., made manipulative behavioral choices) or made avoidant behavioral choices, were more likely to rated as Miserable/Fearful by teachers.

Evaluation of a Model of Social Competence

In an effort to examine the complex paths from affective to behavioral choice, indices of subjects' linkage of affective and behavioral choices also were created. For example, a prosocial linkage variable was created which equalled the total number of sad affective

choices which were followed by prosocial behavioral choices. Children who scored higher on this linkage variable showed more happiness in preschool, and were more emotionally expressive [*rs* (26) = .49 and .56, *ps* < .05 and .01, respectively]. They were also more well-liked and scored lower on Miserable/Fearful ratings (*rs* = .40 and -.54, *p* < .05 and .01, respectively).

An aggressive linkage variable was created which equalled the total number of angry affective choices which were followed by aggressive behavioral choices. Children who scored higher on this aggregate were less likely to show happiness or be emotionally expressive overall in the preschool classroom (*rs* = -.39 and -.38, *ps* < .05). They also tended to be less well liked (*r* = -.33, *p* < .08.

Insert Figures 1 and 2 here

In order to best summarize the pattern of covariation among these variables, a LISREL analysis was conducted. The variables considered to be exogenous were rate of happiness expressed in preschool (as it predicted the affective choice "sad" on the CST), and the emotion knowledge aggregate (as it predicted the behavioral choice "prosocial" on the CST). Then, from these paths, the affective choice "sad" predicted the

behavioral choice "prosocial," which in turn predicted ratings of social competence.

LISREL's maximally likely coefficients for each pathway are depicted with Figure 1, along with the significant associated *t*s for each. The coefficient for each hypothesized pathway was significant. LISREL's overall test of the goodness-of-fit of the model, a chi-square testing the discrepancies between the observed pattern of covariation among the variables and the covariation that would be expected on the basis of the model, was nonsignificant, as hoped [chi-square (9) = 7.11, *p* = .63). LISREL also computed a goodness-of fit index which indicates what percent of the covariation is being described by the model, similar to an R^2 statistic. In our case this goodness of fit index is .92, adjusted to .81. These indices, taken together, suggest that the model fits the data well.

A second LISREL analysis was conducted, in which the variables considered to be exogenous were rate of happiness expressed in preschool (as it predicted the affective choice "angry" on the CST), and the emotion knowledge aggregate (as it predicted the behavioral choice "aggressive" on the CST). Then, from these paths, the affective choice "angry" predicted the

behavioral choice "aggressive," which in turn predicted ratings of social competence.

LISREL's maximally likely coefficients for each pathway are depicted with Figure 2, along with their associated ts. The LISREL goodness-of-fit chi-square was nonsignificant [chi-quare (9) = 10.76, p = .29), and the goodness-of fit index equalled .88, adjusted to .74. The model again fits the data well, although the only significant pathways were from predicted affect to predicted behavior to sociometric rating.

Discussion

Acquiring skill with peers is a major developmental task during the early childhood period; children must learn to manage their emotional arousal, and to maintain behavioral organization despite this arousal, during peer interaction (Parker & Gottman, 1989; Waters & Sroufe, 1983). Because of the duality of this developmental task, affective as well as behavioral choices were included in the CST.

Thus, we sought to demonstrate young children's coherent, organized social cognition about both aspects of taxing peer situations. It is reasonable, however, to question whether preschoolers can give accurate self reports regarding their own emotions, especially negative ones. For example, in Cole's study of

expressive control (1986), only 75 percent of preschool-aged subjects acknowledged feeling negative about receiving prizes they had already deemed undesirable, even when they were prompted to be frank. In our study, the task of self disclosure was made easier by allowing children to choose among pictorial depictions of emotions which most could differentiate.

It also is important to note that these preschoolers gave differentiated reports of their likely emotions across differing situations. In particular, their choice of the affective response "sad" showed that they understood that the block and hitting situations were often problematic. Earlier research has shown that, for preschoolers, the emotional label "sad" can denote sadness, distress, a general feeling "bad" (Denham & Couchoud, 1990). Thus we conclude that these subjects used the affective choice of sadness to denote almost a moral concern about problematic peer situations.

Further, children's chosen emotional responses were often related to their chosen behavioral responses. These preschoolers already were exhibiting understanding of the linkages between their anger and their aggression (Averill, 1982), and between their distress and their prosocial behavior (Barnett et al., 1979); they appeared aware that their emotions could either enable or disable

prosocial behavior (see also Denham, 1986). Thus, we may have some confidence in these self reports, and in the attainment of our goal to demonstrate preschoolers' organized social cognition.

Personal styles in affective and behavioral choices also emerged. That is, children who chose sad affective responses were unlikely to choose angry affective responses, and those who chose prosocial behavioral responses were unlikely to choose either aggressive or avoidant responses.

Results also supported our model of social competence in preschool: Emotion, both through one's own expressed emotions and understanding of emotions, predicts one's social cognition about developmentally important situations. Further, the quality of one's social cognitions about these situations predicts the evaluations of one's social competence made by significant persons in the preschool environment.

Specifically, children who were more emotionally positive and/or expressive showed a specific social cognitive pattern of sad, not angry, affective choices and prosocial, not aggressive, behavioral choices. Emotionally expressive, positive children may be more able to mentally focus on problematic peer situations

and organize socially competent responses (Hoffman, 1975; Sroufe et al., 1984; Waters & Sroufe, 1983).

Understanding others' emotional viewpoints in order to choose or perform skilled prosocial responses is a central element of many theories of prosocial behavior (Eisenberg, 1986). The relation between such understanding of emotion and actual prosocial behavior is supported by our earlier work (Denham, 1986), and in this study, children's general understanding of emotions was related to prosocial behavioral choices. The discovery that understanding of emotions also appears to fuel thinking about performance of prosocial behavior begins to uncover the complex social cognitive processes by which it relates to that observed behavior.

Further, children who were less able to label emotional expressions more often chose happy affective responses. Misperceiving negative situations as positive appears to be a distinct developmental delay; in our earlier research, we also have found that confusing happy and sad expressions and situations on our puppet measure was inversely related to likability (Denham, McKinley, et al., 1990).

The relations among CST affective and behavioral variables and others' assessments of children's social competence were complex. It was clear that children who

were more well liked by their peers chose prosocial, not aggressive, behavioral responses. As with the results for understanding of emotion, this social cognitive finding is supported by actual behavioral observations in which more well-liked children performed more prosocial, and less aggressive, behaviors (Denham, McKinley, et al., 1990). Again, we may have tapped the initial, complex social cognitive process by which prosocial behavior relates to likability (i.e., accurately processing the social cues in peer situations; Dodge et al., 1986; Putallaz, 1983). Importantly, peers' assessment of likability also is likely to be based on the social cognitive processing of social cues from each child's enacted behavior, which is itself based on social cognitive processes similar to those tapped in the CST (Coie & Kuperschmidt, 1983; Dodge, 1983; Dodge, Coie, & Brakke, 1982; Dodge et al., 1986). Our study provides initial convergent evidence for this process, in children younger than studied previously.

Children seen by their teacher as more miserable and fearful in the preschool classroom chose angry, but not sad, CST affective responses. Moreover, they chose manipulative, avoidant, but not prosocial, behavioral responses. Children who score high on this PBQ scale

appear quite unhappy in the preschool classroom, and may be participating in a cycle where the skewed quality of their social problem-solving only serves to continue their social failure and increase their misery. Their predominant affective choice, anger, also should be highlighted.

Perhaps surprisingly, teachers' evaluations of children's aggression did not relate to any CST variable, affective or behavioral. This finding stands in sharp contrast to earlier findings of teacher-rated aggression's relation with social cognitive biases and deficits (Rubin & Clark, 1983).

Analyses of linkage variables (i.e., sad and prosocial choices, angry and aggressive choices) and LISREL analyses showed that the model proposed here fit our data well, especially for CST sad and prosocial choices, The pathways for the linkages between expressed emotion, understanding of emotion, CST sadness and prosocial responses, and both peer and teacher evaluations of social competence, were well supported. In contrast, the only significant pathways in the model utilizing CST angry and aggressive responses were from CST anger to CST aggression to sociometric likability.

In summary, the current findings stress the importance of both the quality of children's solutions

to problematic peer situations, and of including affect in the social cognitive process. Researchers have begun to raise study the socialization of important behavioral and social cognitive capabilites which support peer competence (see Pettit, Dodge, & Brown, 1988; Putallaz, 1987). Their early research has suggested modeling of parental emotional expressiveness during interaction (Putallaz, 1987), and commonality between maternal and children's social cognition about peer situations (Pettit et al., 1988). Thus, a fruitful avenue of future research using the CST could be to examine the socialization pathways of this important social cognition about affective and behavioral choices during challenging peer situations.

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Author Identification Notes

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Table 1

Descriptive Data for All Variables

Variable	M	SD
CST Affect		
Happy	0.64	0.62
Sad	1.25	1.00
Angry	0.93	0.98
Neutral	0.18	0.39
CST Behavior		
Prosocial	1.43	1.03
Aggressive	0.64	0.95
Manipulative	0.32	0.55
Avoidant	0.61	0.79
Observed Emotion[a]		
Happy	0.51	0.32
Sad	0.03	0.04
Angry	0.12	0.14
Expressiveness	0.75	0.32
Understanding of Emotion		
Labeling	13.74	1.51
Situations	32.22	7.79

Table 1 (continued)

Variable	M	SD
Sociometric Rating		
Positive	6.64	2.39
Negative	4.75	2.07
Neutral	3.82	2.87
Total Rating	32.32	5.27
Teacher Rating (PBQ)		
Aggressive	2.82	3.38
Miserable/Fearful	1.32	1.31

[a] All observed emotion variables are frequencies per minute.

Table 2

Intercorrelations Among CST Categories

	CST (Responses to Challenging Peer Situations)							
		Affective				Behavioral		
	Happy	Sad	Angry	Neutral	Prosocial	Aggressive	Manipulative	Avoidant
	1.	2.	3.	4.	5.	6.	7.	8.
1.	---	-.33	-.17	-.34+	.07	.03	.24	-.30
2.		---	-.81***	-.02	.36+	-.45*	-.02	.08
3.			---	-.16	-.44*	.53**	-.30	.15
4.				----	.08	-.22	.41*	-.13
5.					---	-.63**	-.12	-.47**
6.						---	-.27	-.19
7.							---	-.21

+ $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3

Relations of CST Variables with Observed Emotions, Emotion Knowledge, and Social Competence Ratings

	CST (Responses to Challenging Peer Situations)							
	Affective				Behavioral			
	Happy	Sad	Angry	Neutral	Prosocial	Aggress.	Manip.	Avoid.
Observed Emotions								
Happiness	-.16	.45*	-.31	-.07	.44*	-.39*	-.17	.00
Sadness	.12	-.10	-.06	.20	-.06	-.10	.02	.18
Anger	.12	.20	-.15	-.28	.14	.14	-.22	-.19
Expressive	.00	.48*	-.37*	-.23	.53**	-.24	-.30	-.22
Understanding of Emotions								
Aggregate	.06	.00	-.05	.03	.40*	-.25	.06	-.24
Social Competence Ratings								
Peer Likability	-.30	.25	-.11	.12	.44*	-.40*	-.06	-.06

Table 3 (continued)

	CST (Responses to Challenging Peer Situations)							
	Affective				Behavioral			
	Happy	Sad	Angry	Neutral	Prosocial	Aggress.	Manip.	Avoid.
PBQ Aggression	.06	-.13	.11	-.03	-.01	.03	-.21	.13
PBQ Miserable/Fearful	.04	-.43*	.40*	.18	-.52**	.04	.37*	.38*

* $p < .05$. ** $p < .01$.

Figure Captions

Figure 1. LISREL analysis results evaluating social competence model with CST sad affect and CST prosocial behavior strategies.

Figure 2. LISREL analysis results evaluating social competence model with CST angry affect and CST aggressive behavior strategies.

Appendix: CST Scenarios

Item 1: Mary/John was bulding a very tall tower of blocks. But Bobby knocked it down.

How do you feel?

What do you do?

Do you just build another tower?

Hit Bobby or yell at him?

Cry?

Find something else to play with?

Item 2: May/John is having a good time playing in the sandbox when Bobby hits her/him/

How do you feel?

What do you do?

Do you tell him that's not a nice thing to do?

Hit him back?

Cry?

Go play somewhere else?

Item 3. Mary/John sess some her/his friendls playing a game of "Candyland." S/he would really like to play too.

How do you feel?

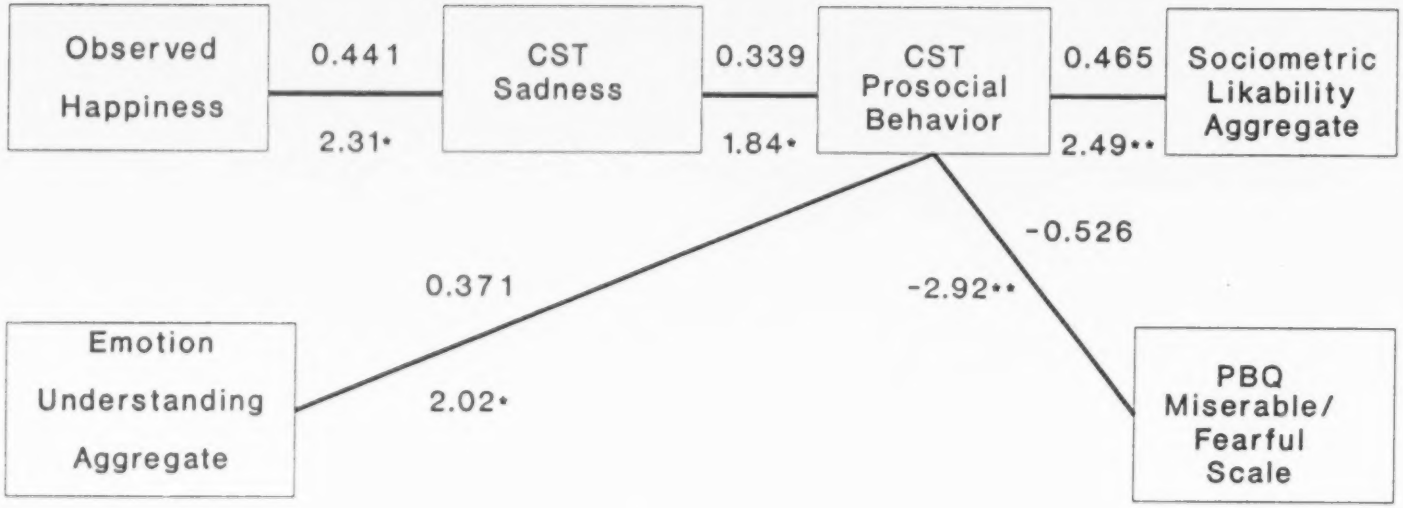
What do you do?

Ask if you can play with them?

Mess up the game by taking one of the pieces?

Stand on the side and look sad?

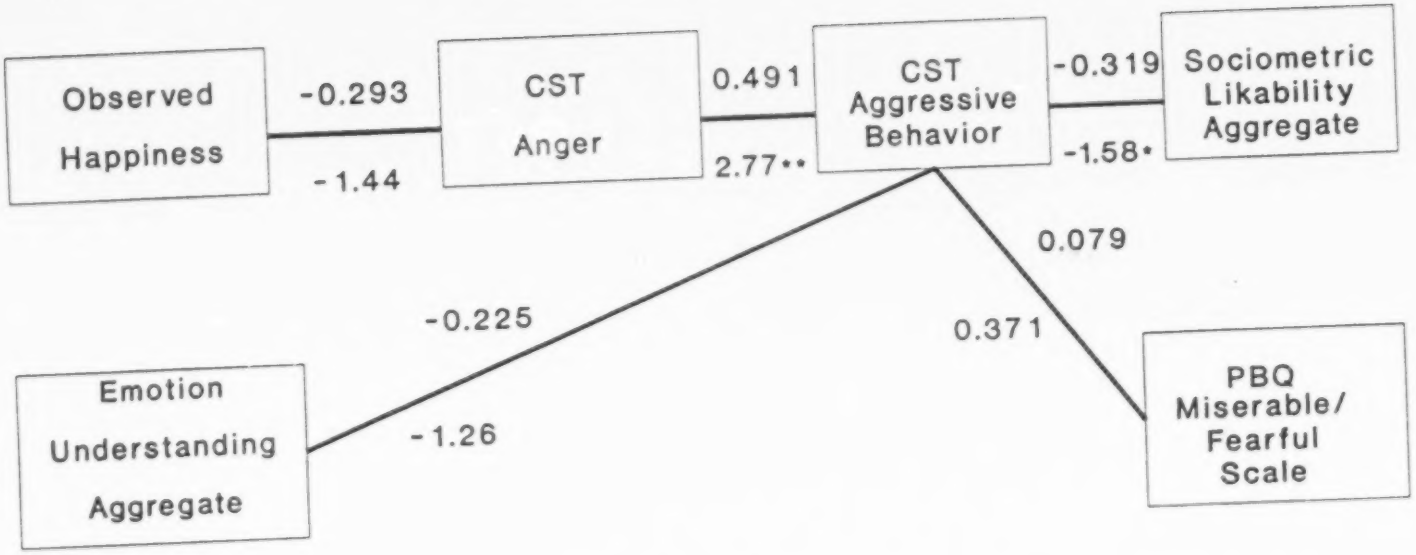
Wait and see it they notice you?



$\chi^2(9) = 7.11 \quad p = .63$

GOODNESS-OF-FIT INDEX = 0.919 *p < .05 **p < .01

Figure 1



$\chi^2(9) = 10.76 \quad p = .29$

GOODNESS-OF-FIT INDEX = .888 *p < .05 **p < .01

Figure 2